

Amendment to the Claims:

1. (Presently amended) A hydrogen storage composite material comprising:
 - a Mg-Ni based alloy; and
 - a coating of a catalytically active metal deposited directly on at least a portion of a surface of said Mg-Ni based alloy, said coating being less than about 200 angstroms thick;
 - said composite material capable of adsorbing at least 3 weight percent hydrogen and desorbing at least 1 weight percent hydrogen at 30 °C.